

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP03/02736

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> B01J21/04, B01J23/58, B01J32/00, B01D53/86

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> B01J21/00-38/74, B01D53/86, B01D53/94

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1926-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US 2002/4455 A1 (NAKANISHI, Tomohiko), 10 January, 2002 (10.01.02), Claims 1, 6, 7, 10, 13, 14, 25; examples 1, 2 & JP 2002-59009 A Claims 1, 6, 7, 10, 13, 14, 25; examples 1, 2	1-3, 5-17, 20 4, 18-20
X Y	JP 6-31139 A (Toyota Motor Corp.), 08 February, 1994 (08.02.94), Claim 1; examples (Family: none)	1-3, 5-17 4, 18-20
Y	EP 1078678 A2 (MITSUBISHI JIDOSHA KOGYO KABUSHIKI KAISHA), 28 February, 2001 (28.02.01), Claim 1; Par. No. [0041] & JP 2001-129402 A Claim 1; Par. No. [0023]	4, 18, 19

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier document but published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&amp;" document member of the same patent family</p>
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Date of the actual completion of the international search  
02 June, 2003 (02.06.03)

Date of mailing of the international search report  
17 June, 2003 (17.06.03)

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Japanese Patent Office

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